

## CLAIMS:

1. A method of assessing the quality of skin print images, and particularly fingerprint images, characterized in that gradients are formed for the individual picture elements (pixels) of the skin print images, in that a mean value is formed from the gradients of the pixels in one region of the image (tile) at a time, and in that similarities in the mean values from tile to tile form a measure of quality.  
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2. A method as claimed in claim 1, characterized in that the gradients formed initially, which have the components  $g_{x(alt)}$  and  $g_{y(alt)}$ , are squared after the fashion of a complex number by the formulas  $g_x = g_{x(alt)}^2 - g_{y(alt)}^2$  and  $g_y = 2g_{x(alt)} * g_{y(alt)}$ .  
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3. A method as claimed in either of claims 1 and 2, characterized in that the mean values are entered in two directional matrices for x and y, in that scalar products are formed of the directional matrices together with the matrices that are displaced horizontally, vertically and in the directions of both diagonals by one tile, in that each of the products that were obtained in that way by multiplying the matrices are summed over all the tiles, and in that the sums are added together and are divided by the sum of the scalar products of the directional matrices with themselves in order to form the quality measure, said sum of the scalar products of the directional matrices with themselves being summed up over all tiles.  
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4. A method as claimed in any of claims 1 to 3, characterized in that the lengths of the average gradients are used to determine a region of interest of the skin print that has been scanned.  
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5. An arrangement for assessing the quality of skin print images, and particularly fingerprint images, characterized by a system for forming  
25 gradients for the individual picture elements (pixels) of the skin print image, a mean value from the gradients of the pixels in one region of the image (tile) at a time, and a measure of quality from similarities in the mean values from tile to tile.

6. An arrangement as claimed in claim 5, characterized in that the system for forming the gradients for the individual picture elements (pixels) of the skin print image and for forming the mean value from the gradients of the pixels in one region of the image (tile) at a time is arranged to square initially formed gradients, which have the components  $g_{x(alt)}$  and  $g_{y(alt)}$ , after the fashion of a complex number by the formulas  $g_x = g_{x(alt)}^2 - g_{y(alt)}^2$  and  $g_y = 2g_{x(alt)} * g_{y(alt)}$ .

7. An arrangement as claimed in either of claims 5 or 6, characterized in that the system for forming the measure of quality from similarities in the mean values from tile to tile is arranged

to enter the mean values in two directional matrices for x and y,

to form scalar products of the directional matrices having matrices that are displaced horizontally, vertically and in the directions of both diagonals by one tile,

to sum, over all the tiles, each of the products that are obtained by multiplying the matrices, and

to form the quality measure by adding the sums together and dividing the scalar products of the directional matrices, said scalar products having been summed over all the tiles, by themselves.

8. An arrangement as claimed in any of claims 5 to 7, characterized in that the system for forming gradients for the individual picture elements (pixels) of the skin print image and for forming a mean value from the gradients of the pixels in one region of the image (tile) at a time is arranged to determine, from the lengths of the averages gradients, a region of interest of the skin print that has been scanned.